

What is claimed is:

1. A vacuum cleaner bag comprising: an impermeable media forming a cavity for storing a dirt; an inlet for attachment of said bag to a vacuum cleaner and for conveying said dirt into said cavity; and an integrally connected air-permeable particle separator means sealed over an exit hole in said impermeable media for retaining said dirt in said cavity as a clean air exits said bag.
- 5 2. The bag of claim 1 further comprising a re-sealable bag open-end means for removing said dirt and reusing bag.
- 10 3. The re-sealable bag open-end of claim 2 wherein said bag open-end means consists of interlocking parts for closing and opening end of bag consisting of said impermeable media.
- 15 4. The resealable bag open-end of claim 3 further comprising a slider means to facilitate opening and closing bag open-end.
5. The air-permeable particle separator means of claim 1 wherein air-permeable particle separator means is air-permeable material capable of separating dirt from airflow.
6. The air-permeable particle separator means of claim 1 wherein air-permeable particle separator means is a frame sealed to said exit hole of said impermeable media and a pleated media is sealed in said frame.
- 20 7. The air-permeable particle separator means of claim 1 wherein at least one layer is expanded polytetrafluoroethylene (PTFE) membrane.
8. The air-permeable particle separator means of claim 1 wherein at least one layer is microfiberglass.
9. The air-permeable particle separator means of claim 1 wherein at least one layer is paper.
- 25 10. The air-permeable particle separator means of claim 1 wherein at least one layer is non-woven.
11. The air-permeable particle separator means of claim 1 wherein at least one layer is electrostatic.
- 30 12. The impermeable media of claim 1 wherein said impermeable media is transparent for observing contents of bag.

13. The air-permeable particle separator means of claim 1 wherein air-permeable particle separator means consists of flat media.

14. The bag of claim 1 further comprising antimicrobial materials.

15. The bag of claim 1 further comprising odor modification means.

5 16. The bag of claim 1 wherein air-permeable particle separator is replaceable.

17. The air-permeable particle separator means of claim 1 wherein said air-permeable particle separator means is protected by a shield.

18. The air-permeable separator means of claim 1 further comprising a pre-filter means.

10 19. The method of collecting a dirt in a vacuum cleaner wherein:

An inlet of a bag comprising impermeable media and an air-permeable particle separator is installed in a vacuum cleaner in an essentially leak-proof manner;

Dirt is conveyed into bag cavity;

15 Air-permeable particle separator separates dirt from air; and

Cleaned air exits said bag through said air-permeable particle separator and said dirt is retained in said bag cavity.

20 20. The method of collecting a dirt in a vacuum cleaner bag, emptying its contents and reusing said bag wherein:

An inlet of a bag comprising impermeable media and an air-permeable particle separator is installed in a vacuum cleaner in an essentially leak-proof manner;

Dirt is conveyed into bag cavity;

Air-permeable particle separator separates said dirt from air;

25 Cleaned air exits said bag through said air-permeable particle separator and said dirt is retained in said bag cavity;

Bag is removed from vacuum cleaner;

Bag is opened and dirt is removed;

Bag is re-closed; and

30 Bag is re-installed in vacuum cleaner for re-use.